Claims 1-9 are pending in the case. Claims 1-8 are rejected. Claim 9 is objected to as being dependent upon a rejected base claim but is allowable if rewritten in independent form. In the present submission, claims 2-7 have been cancelled and claims 1, 8 and 9 have been amended. Reconsideration is respectfully requested.

§103(a) Rejection

Claims 1-8 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Ogata et al. (U.S. Patent No. 6,753,910; hereafter "Ogata") in view of Uchikawa (U.S. Patent No. 7,123, 294). In the present submission, claims 2-4 have been cancelled and the rejection as these claims are therefore moot. Furthermore, claim 1 has been amended to include the limitations of claims 5, 6 and 7. Claims 5-7 have also been cancelled. Claims 8 and 9 have been amended to update their references to the independent claim. Applicant respectfully submits that claim 1, as amended to include the limitations of previous claims 5, 6 and 7, is patentable over the cited references.

Claim 1, as amended, is patentable over Ogata at least by reciting "said noise reduction circuit calculates new pixel data for each frame of pixel data received using the equation: new data = α*input data +(1- α)*old data." This limitation was previously included in claim 7.

Ogata discloses in col. 6, ln. 32-57, a gradation correction circuit 8 which "produces a contrast correction coefficient g(i, j) using such a coefficient calculation function G as illustrated in FIG. 4, for example, in response to the signal level of the low frequency component r(i, j)." (Ogata, col. 6, ln. 5-9.) The function G shown in Fig. 4 of Ogata has a flat portion for small values of the low frequency component r(i,j) and a decreasing portion for large values of the low frequency component r(i,j). The behavior of the function G in Fig. 4 is further described in Ogata, col. 13, ln. 11-25. Ogata went on to describe that the correction coefficient is smoothed between corresponding pixels of successive frames to generate smoothed correction coefficients g'(i,j,m). (Ogata, col. 6, ln. 33-36.) The correction coefficient g'(i,j,m) is generated and given by the equation (7) as follows:

$$g'(i,j,m)=P\times g(i,j,m)+(1-P)\times g'(i,\ j,\ m-1) \qquad \ldots (7)$$

(See Ogata, col. 6, ln. 53-58).

Ogata describes generating a correction coefficient for correcting the contrast of the pixel values and the correction coefficient is subject to time-smoothing. Ogata does not teach or suggest providing a noise reduction circuit which calculates new pixel data for each frame of pixel data received using the equation: new data = α*input data +(1- α)*old data, as recited in amended claim 1.

The Examiner cited Uchikawa for disclosing a frame buffer. Uchikawa does not cure the deficiency of Ogata. Claim 1, as amended, is therefore patentable over the cited references. Claims 8-9, dependent upon claim 1, are patentable over the cited references for at least the same reasons claim 1 is patentable.

CONCLUSION

After the present amendment, claims 1, 8 and 9 remain. For the reasons stated above, claims 1, 8 and 9 are in condition for allowance and passage of the present case to allowance is respectfully requested. If the Examiner would like to discuss any aspect of this application, the Examiner is invited to contact the undersigned at (408) 382-0480.

Respectfully submitted,

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